Date: Sat, 13 Nov 93 04:30:10 PST
From: Ham-Ant Mailing List and Newsgroup <ham-ant@ucsd.edu>
Errors-To: Ham-Ant-Errors@UCSD.Edu
Reply-To: Ham-Ant@UCSD.Edu
Precedence: Bulk
Subject: Ham-Ant Digest V93 #109
To: Ham-Ant

Ham-Ant Digest Sat, 13 Nov 93 Volume 93 : Issue 109

Today's Topics:

Butternut Butterfly
Diamond Dual Band Antennas
Discones & Polarization (2 msgs)
End effects/parallel dipoles...
G5RV & DX RE: VERTICALS
Modify a TV antenna?
Verticals for working DX on 40 and 80?
What's RG-22?

Send Replies or notes for publication to: <Ham-Ant@UCSD.Edu>
Send subscription requests to: <Ham-Ant-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Ant Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-ant".

Date: 9 Nov 93 17:17:31 EDT
From: hayes!bcoleman@uunet.uu.net
Subject: Butternut Butterfly
To: ham-ant@ucsd.edu

In article <CFIEz5.Mx6@csn.org>, joelf@csn.org (Joel F. Frederick) writes:
> Any feed back on the Butternut Butterfly beam. I am considering that as a
> better option to the Dipole and Vertical for the 14 - 30 Mhz Bands.

I used one for three years. Don't expect too much directivity. However, it was
better than my doublet, even at just 35'.

I replaced it with a Cushcraft A3. It is still just at 35', but I do see much
more front-to-back, and there is a much more pronounced nulling off the side.

If you can afford the space and cost, go with the A3. If you need 12 and 17m,
or you have size or cost constraints, the Butternut is a passable first beam.

--
Bill Coleman, AA4LR ! CIS: 76067,2327 AppleLink: D1958
Principal Software Engineer ! Packet Radio: AA4LR @ W4QO
Hayes Microcomputer Products, Inc. ! UUCP: uunet!hayes!bcoleman
POB 105203 Atlanta, GA 30348 USA ! Internet: bcoleman%hayes@uunet.uu.net
Disclaimer: "My employer doesn't pay me to have opinions."
Quote: "The same light shines on vineyards that makes deserts." -Steve Hackett.

Date: Thu, 11 Nov 1993 20:55:47 GMT
From: sdd.hp.com!spool.mu.edu!olivea!sgigate.sgi.com!sgiblab!a2i!
davidj@network.ucsd.edu
Subject: Diamond Dual Band Antennas
To: ham-ant@ucsd.edu

In <1993Nov11.144642.10316@schbbs.mot.com> CSLE87@maccvm.corp.mot.com (Karl
Beckman) writes:

>I can't comment on the first part of your query, but there is a simple
>rule for the amount of ground plane required for mobile antennas:
>The ground plane SHOULD extend at least the length of the antenna in
>all directions from the mounting base. In the real world, at least 1/4
>wavelength is OK for "gain" antennas, but the H=R idea gets better field
>strength and signal reports. Remember that the elevation of the main lob

A longer ground plane than 1/4 wave might bring the radiation angle
down a bit.

And the original poster asked:

>I'm looking to purchase a dual band mobil antenna, a minimum of 5/8
>wave on the 2m side. Diamond manufactures several of significant size(i.e.
>57 inches or larger) with UHF mounts(SO-239 & PL259). Given the size of the
>antenna and anticipated wind load can I expect to see problems with the
>mount cracking or breaking off? In addition, Diamond's SG & NR series dual

Well, I have a 23 foot antenna up on a hilltop where we get 50+ mph winds
all the time. The only real problem (that reportedly has caused Motorola
to stop using these and go back to the 9-12 foot version) is that during
earthquakes they tend to oscillate, and they have lost a few.

73 David WA6NMF
--
David Josephson <david@josephson.com>

Date: 12 Nov 93 16:26:33 GMT
From: ogicse!hp-cv!hp-pcd!hpcvsnz!tomb@network.ucsd.edu
Subject: Discones & Polarization
To: ham-ant@ucsd.edu

Steve Brown (sbrown@charon.dseg.ti.com) wrote:
: In article <CGBELz.5vF@freenet.carleton.ca> aj467@Freenet.carleton.ca (Bill Macpherson) writes:

: > In a previous article, francis4@applelink.apple.com (Dexter Wm. Francis) says:
: >
: > >It is my understanding that discones are circularly polarized. If so,
: > >how does this affect the reception of non-circularly polarized signals?
: > >Shouldn't a circularly polarized antenna would do well on any
: > >linearly polarized signal (horizontal or vertical)???
: >
: > Silly me, all along I was misleading myself to believe they were verticals,
: > Silly me.
: > They are verticals aren't they!

: They're verticals.

Except, of course, for the non-vertically (e.g., horizontally) mounted ones...
;-)

Date: Thu, 11 Nov 1993 15:54:02 GMT
From: paris.ics.uci.edu!csulb.edu!library.ucla.edu!europa.eng.gtefsd.com!howland.reston.ans.net!cs.utexas.edu!csc.ti.com!tilde.csc.ti.com!cauldron!ra.csc.ti.com!fstop@news.service.uci.edu
Subject: Discones & Polarization
To: ham-ant@ucsd.edu

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> Silly me.
> They are verticals aren't they!

They're verticals.

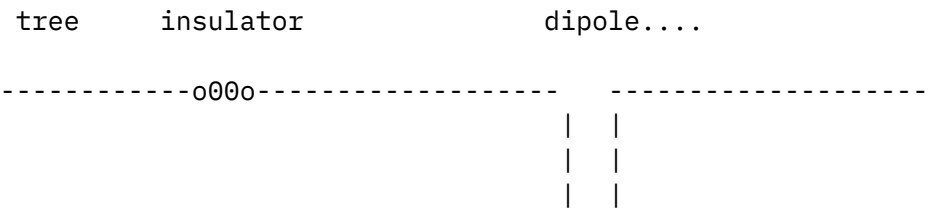

```
              ******************************************
              |  Steve Brown, WD5HCY         |            |
              |  sbrown@charon.dseg.ti.com   | Simplicate |
              |  wd5hcy@wd5hcy.ampr.org      | and add    |
              |       [44.28.0.61]           | lightness. |
              |  wd5hcy@kf5mg.#dfw.tx.usa.na |            |
              ******************************************
```

Date: Wed, 10 Nov 93 13:37:27 GMT
From: swrinde!cs.utexas.edu!howland.reston.ans.net!pipex!sunic!ugle.unit.no!
lise.unit.no!kenneth@network.ucsd.edu
Subject: End effects/parallel dipoles...
To: ham-ant@ucsd.edu

 Thinking of a center fed dipole, made up of copper wire, streched between two trees as the figure show, i'm not sure if i've understood why the end-insulators add capacitance to the antenna. Can anyone tell me ?? And what about other nearby objects ?? How do they influence on the antenna and 'the capacitance' ?
How large is the shortening effect due to those end insulators ??

And one more question. Is it advisable to build two parallel dipoles for 20 and 15 meter, with the same transmatch and feedline ?? Or are the two wavelenghts too close, so that one of the bands will suffer ?? IF, which one will suffer ??

     center fed dipole with end insulators :



                    thanks in advance !
Kenneth, LA7GIA.

Date: Wed, 10 Nov 1993 17:26:20 GMT
From: library.ucla.edu!agate!howland.reston.ans.net!cs.utexas.edu!utnut!torn!nott!
cunews!freenet.carleton.ca!Freenet.carleton.ca!aj467@network.ucsd.edu
Subject: G5RV & DX RE: VERTICALS
To: ham-ant@ucsd.edu

You may have noticed that the G5RV uses the feedline for an "adjustment"
on the length of the dipole antenna. By putting RF on the feedline you are
already adding a vertical component to your transmitted signal. Designed
as a 3/2 wave antenna on 20 Mtrs the G5RV is a compromise antenna, it is
designed to offer tunability on the other HF bands, and therefore is not
as efficient a radiator on any band as a half-wave dipole. On frequencies
above 40 Mtrs ie 20 etc there are multiple lobe patterns, so direction
(North/South) orientation could place your desired DX in nulls.
owever I have had great success with the G5RV at about 100 ft. Gain some
altitude, gain some gain.

--
Bill VE3NJW   Advanced Amateur
Packet Address : VE3NJW@VE3KYT.#EON.ON.CAN
Freenet Address: aj467@Freenet.Carleton.ca

Date: 9 Nov 93 18:19:48 EST
From: agate!howland.reston.ans.net!pipex!sunic!psinntp!psinntp!arrl.org@ames.arpa
Subject: Modify a TV antenna?
To: ham-ant@ucsd.edu

In rec.radio.amateur.misc, zardoz@ornews.intel.com (Jim Garver) writes:
>In article <CGArCy.77w@ryn.mro4.dec.com> randolph@est.enet.dec.com (Tom Randolph)
writes:
>>
>>In article <CGAAr2.F14@ncifcrf.gov>, mack@fcs260c.ncifcrf.gov (Joe Mack)
writes...
>>>Assuming the point is to have a 2m antenna, rather than the object being
>>>to modify an existing antenna, why not get a design (somewhere, ARRL handbook
>>>if nowhere else), by the boom feedthroughs and brackets from say Rutland
>>>Arrays (advertise in QST, Tom says he sells the hardware if you want it),
>>>buy some 6061 Al tubing and rod from your local metal tubing supply
> ^^
>Ha! Have you ever tried this? They are NOT interested in your puny order

Don't forget to get the right temper--one amateur I know got some 6061
from his local supply that appeared to be type T0--a special soft
condition. Normally, antennas use a T6 temper, which is very hard.

One place in CT use to open a Saturday once in a while for people to buy stuff, but I haven't kept track of the local opportunities.

Instead, I get mine the lazy way--pick up the phone and have it sent by UPS. That way, other people can duplicate my published designs. Both of my antennas tested at the NE conference were good enough to have Joe Riesert re-testing his commercial antennas.... something about gain compression... :-).

Three mail order suppliers
Texas Towers 1-800-272-3467
Alexander Aeroplane Company 1-800-831-2949
Metal and Cable Corp 216-425-3504 $50 minimum

Zack Lau KH6CP/1

Internet: zlau@arrl.org "Working" on 24 GHz SSB/CW gear
Operating Interests: 10 GHz CW/SSB/FM
US Mail: c/o ARRL Lab 8 states on 10 GHz CW
225 Main Street Station capability: QRP, 1.8 MHz to 10 GHz
Newington CT 06111 modes: CW/SSB/FM/packet
amtor/baudot
Phone (if you really have to): 203-666-1541

Date: Wed, 10 Nov 1993 16:09:41 GMT
From: swrinde!cs.utexas.edu!math.ohio-state.edu!magnus.acs.ohio-state.edu!csn!yuma!galen@network.ucsd.edu
Subject: Verticals for working DX on 40 and 80?
To: ham-ant@ucsd.edu

In article <CG8z07.B4F@cbnewsm.cb.att.com> jeffj@cbnewsm.cb.att.com (jeffrey.n.jones) writes:
>I currently have a G5RV up about 20 feet in my backyard and while
>it works fine for domestic work on 40 meters I would like to work
>more DX there. I have heard that the Butternuts and GAP antennas have
> Jeff Jones AB6MB
> jeffj@seeker.mystic.com

Get the G5RV up higher if possible. I've got mine up about 45 feet and DX is not a problem! I've been able to work Europe, Japan, Hawaii and some South Pacific from Colorado.
73,
Galen, KF0YJ

Date: 11 Nov 1993 16:45 CST
From: munnari.oz.au!spool.mu.edu!howland.reston.ans.net!cs.utexas.edu!swrinde!dptspd!TAMUTS.TAMU.EDU!zeus.tamu.edu!tskloss@network.ucsd.edu
Subject: What's RG-22?
To: ham-ant@ucsd.edu

The "RG-22" may be some specialty coax made by a defunct wire manufacturer. RG-8 type or generically "1/2" inch coax comes in many varieties. There is RG-214, RG-216, belden 9913, etc. all of which are basically RG-8 with some special addition such as larger diameter center conductor (which requires a larger connector), air dielectric, silver plated conductors, double shielding, more flexible shielding and so on. Some of these special ones have thier own RG number because they are commonly used in military type, high reliability applications. Our instruments use a special type with silver plated conductors, both center and shield, that resemble RG-8 and use normal RG-8 connectors although the cable is not RG-8.

Anyhow, my advice is strip an inch off one end and try to get a handle on what it is composed of. Is the center conductor solid or stranded? What is the OD of the center conductor? Are any of the conductors plated with other metals? What is the dielectric made of? Jot all of the basic parameters down and look through the belden master catalog and see if you can find something close. If you do, then use that cable data to calculate what the cable can do for you.

Chances are it may have been made for a particular purpose, either to maximize freq/power transfer or maybe protect from the elements and heat.

good luck!

-tim

/--\
* *(* (**)(* *)* *)*	Tim Skloss KC5DNA
* * \/ \/ * *	Texas A&M University, Dept. of Chemistry
* /=========\ *	College Station, TX 77843-3255
*	OXFORD		LABORATORY FOR MAGNETIC RESONANCE
	mags.	*	AND MOLECULAR SCIENCE
*	RULE!		voice: (409) 845-4459
|_________|	fax: (409) 845-4719
|| ||	Internet: TSKLOSS@venus.tamu.edu
== ==	My opinions do not reflect those of TAMU!
\--/

"The brain is much like a computer;
therefore dumb people do not exist, just people running DOS!"
PowerPC - The ULTIMATE personal computing machine.

Date: 11 Nov 93 21:11:46 GMT
From: sdd.hp.com!hpscit.sc.hp.com!cupnews0.cup.hp.com!jholly@hplabs.hp.com
To: ham-ant@ucsd.edu

References <2br997$1oa@ornews.intel.com>, <CGBwHx.857@hpqmoea.sqf.hp.com>,
<2bttse$ol@ornews.intel.com>
Subject : Re: Ladder Line

Jim Garver (zardoz@ornews.intel.com) wrote:
: Sacrilegious plastic 450 ohm line. I was unable to find a real wobulator
: of suitable size, only those dinky ones found in ARC-5 transmitters.

I know what an ARC-5 transmitter looks like, but pray tell, what is
a wobulator?

Jim ("ever fearful of the Wouff Hong"), WA6SDM
jholly@cup.hp.com

End of Ham-Ant Digest V93 #109
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